

Author Index

Canadian Journal of Soil Science, Volume 83, 2003

Akinremi, O.O., 415
Anderson, D.W., 405
Angers, D.A., 11, 363, 589

Bailey, W.G., 121
Barnett, G.M., 589
Baron, V.S., 601
Battigelli, J.P., 533
Beauchamp, E.G., 521
Beauchemin, S., 73
Begna, S.H., 337
Behan-Pelletier, V.M., 279
Bélar, J.-L., 139
Bertrand, N., 631
Biederbeck, V.O., 507
Bolinder, M.A., 11, 73
Brandt, S., 145
Brandt, S.A., 65
Bremer, E., 431, 443
Broersma, K., 533
Bromfield, E.S.P., 311
Bulmer, C.E. 465
Burton, D.L., 173

Campbell, A.J., 537
Campbell, C.A., 65
Carefoot, J.P., 203
Carter, M.R., 11
Chanasyk, D.S., 601
Chiang, H.C., 167
Chow, T.L., 109
Clayton, G.W., 451, 475
Cluis, D., 73, 589
Coy, G., 431
Curtin, D., 65

Dalpé, Y., 321
Drury, C.F., 343, 381
Dwyer, L.M., 483

Fahmy, S.H., 109
Farenhorst, A., 557
Florinsky, I.V., 557
Forge, T., 131
Fortin, M.-J., 121
Fox, C.A., 227, 231, 245, 265
Fuller, L.G., 173

Gagnon, B., 1, 223, 353
Gareau, R., 425
Gill, K.S., 99, 145
Goh, T.B., 213
Goulet, H., 259

Grant, C.A., 451
Gregorich, E.G., 11, 363, 483

Hamel, C., 337
Hammermeister, A.M., 507
Harapiak, J., 213, 431
Heaney, D., 431
Hendershot, W.H., 581
Hogue, E.J., 131
Hope, G.D., 121
Hu, H.T., 167
Huard, S., 497
Hwong, J.-L., 167

Izaurrealde, R.C., 89

Janzen, H.H., 415
Johnson, R.L., 547
Johnston, A.M., 99, 451
Josse, P.J., 45
Jutras, S., 139

Karam, A., 25
Karamanos, R.E., 213
King, H.B., 167
Klaasen, V.E., 415
Kryzanowski, L., 431
Krzic, M., 465, 533
Kutcher, R., 99

Lafond, G.P., 65
Lafond, J., 1, 537
Lagacé, R., 139
Lalande, R., 1, 353
Landi, A., 405
Larney, F.J., 89, 415
Leclerc, Y., 425
Lemke, R.L., 415
Li, X., 547
Liang, B.C., 65
Lindwall, C.W., 89
Liu, A.A., 337
Liu, J., 547

Ma, B., 337
Ma, B.L., 483
MacDonald, J.D., 581
MacDonald, K.B., 231
MacLeod, J.A., 395, 537
Malhi, S.S., 99, 145
Mapfumo, E., 601
McBride, R.A., 45
McConkey, B.G., 65
McGinn, S.M., 89, 623

McIntyre, G.S., 533
McKenney, D.J., 343
McKenzie, R.H., 431, 443
McKeown, A.W., 289
Mermut, A., 99, 227, 405
Middleton, A.B., 431
Milburn, P.H., 183, 425
Montreal, C.M., 557
Monteith, J.O., 109
Mooleki, S.P., 197
Moreau, G., 425
Morrison, M.J., 483
Moulin, A.P., 65
Muc, D., 557

Naeth, M.A., 507
N'Dayegamiye, A., 25, 497
Neilsen, D., 131
Neilsen, G.H., 131
Nolin, M.C., 73

Pai, C.W., 167
Parent, L.E., 395
Pennock, D.J., 565
Plamondon, A.P., 139
Potter, J.W., 289
Prévost, D., 311

Qian, P., 197

Raza, M., 99
Redding, T.E., 121
Reeelder, R.D., 331
Rees, H.W., 109
Ren, T., 89
Reynolds, W.D., 343, 381
Rochette, P., 631
Royer, I., 589

Sainju, U.M., 155
Sanderson, J.B., 537
Sbih, M., 25
Schmidt, M.G., 35, 121
Schoenau, J., 65, 99, 197, 507
Şeker, C., 615
Shepherd, A., 623
Simard, R., 1, 73, 223, 227, 353, 589
Singh, B.P., 155
Smith, D.L., 337
Solberg, E.D., 431
Soon, Y.K., 475

Tan, C.S., 343, 381
Tashe, N.C., 35

Tenuta, M., 521
Thibault, Y., 497
Timmerman, M.D., 173
Tomlin, A.D., 265
Topp, E., 227, 303
VandenBygaart, A.J., 363
Wang, H., 65
Wang, M.K., 167
Whalen, J.K., 203
Whitehead, W.F., 155
Wu, T., 197
Yang, X.M., 343, 381
Ying, J., 483
ZebARTH, B.J., 183, 425
Zeng, L., 547
Zhang, T.Q., 381
Zheng, Z., 395, 537

Subject Index

Canadian Journal of Soil Science, Volume 83, 2003

Acari
 Acari and Collembola biodiversity in Canadian agricultural soils, 279
 cattle grazing effects on soil mesofauna, 533

Acer circinatum
 soil properties of understory vine maple, 35

Aggregate stability
 effects of selected amendments on soil properties, 615

Aggregation
 cover crop and N fertilization on soil aggregation, 155

Agriculture
 climate change and the Canadian prairies, 623

Agroecosystems
 challenges for soil biodiversity research, 231
 earthworms and agricultural systems, 265
 soil biota and soil organic matter, 245

Air-filled porosity
 N₂O from N Fertilizers, 521

Air sample
 soil air storage and handling, 631

Amendment
 pulp fibre as a soil amendment, 109

Ammonium
 soil N in potato fields, 425

Apple
 mulches and biosolids affect orchard soil properties, 131

Arbuscular mycorrhizal fungi
 mycorrhizal fungi biodiversity in Canadian soils, 321
 soil P depletion capacity of arbuscular mycorrhizae, 337

Aridity
 climate change and the Canadian prairies, 623

Atmosphere, soil
 N₂O from N Fertilizers, 521

Atterberg limits
 physical soil quality assessment from compression test data, 45

Bacteria
 bacteria in agricultural soils, 303

Barley
 yield benefit of P fertilizer in Alberta, 431

Beetle, ground
 ground beetles and agricultural ecosystems, 259

Bentonite S
 sulphur fertilizer effects on sulphate supply to canola, 451

Biocontrol
 fungal plant pathogens and soil biodiversity, 331
 soil-nematode biodiversity, 289

Biodiversity
 bacteria in agricultural soils, 303
 challenges for soil biodiversity research, 231
 mycorrhizal fungi biodiversity in Canadian soils, 321
 soil-nematode biodiversity, 289
 wellsite rehabilitation on native prairie, 507

Biodiversity, soil
 challenges for soil biodiversity research, 231
 earthworms and agricultural systems, 265

Biological quality, soil
 effects of a crude oil spill on microbiological quality, 173

Biomass, microbial
 effects of a crude oil spill on microbiological quality, 173
 soil bioactivity and yield improvement with papermill compost, 353

Biomass, plant
 soil P depletion capacity of arbuscular mycorrhizae, 337

Biosolid
 mulches and biosolids affect orchard soil properties, 131

Biota, soil
 soil biota and soil organic matter, 245

Blueberry, lowbush
 paper sludge effects on lowbush blueberry, 1

Boron concentration and uptake
 canola response to boron, 99

Boron fertilizer
 canola response to boron, 99

Brassica napus L., *B. rapa* L.
 canola response to boron, 99

Bray
 yield benefit of P fertilizer in Alberta, 431

Calibration
 wheat response to copper, 213

Canadian soils
 symbiotic rhizobia in Canadian soils, 311

Canola
 canola response to boron, 99

Carabidae
 ground beetles and agricultural ecosystems, 259

Carbon
 agricultural management on soil carbon, 363

Carbon-14
 formation of iron nodules, 167

Carbon accumulation, rate of
 organic C storage of Saskatchewan soils, 405

Carbon and nitrogen, light fraction cultivation and grassland type on organic C and N, 145

Carbon and nitrogen mineralization rates, 25

Carbon dioxide
 effects of compost and pig manure on soil CO₂ and NO₂ emissions, 343

Carbon, organic
 cultivation-induced soil change, 565
 tillage and crop rotation on Chernozemic soils, 65

Carbon, mineralizable
 tillage and crop rotation on Chernozemic soils, 65

Carbon sequestration
 agricultural management on soil carbon, 363

Carbon, soil
 cover crop and N fertilization on soil aggregation, 155

Carbon, soil, stable isotope of organic C storage of Saskatchewan soils, 405

Cattle manure, composted
 phosphorus leaching from a silty-loam Gleysol, 203

Clay content
 soil texture and fertilizer P effects
 on soil P transformations, 395

Clay loam
 effects of conditioners and tillage
 on a clay loam soil, 381

Clay plus silt associated organic C and N
 organic matter retention in soils of eastern Canada, 11

Climate change
 climate change and the Canadian prairies, 623

Clover, red
 tillage, crop rotation and N economy, 475

Collembola
 Acari and Collembola biodiversity in Canadian agricultural soils, 279

Competition
 wellsite rehabilitation on native prairie, 507

Compost
 effects of compost and pig manure on soil CO₂ and NO₂ emissions, 343
 soil bioactivity and yield improvement with papermill compost, 353
 soil compost P fraction, 223

Composted cattle manure
 phosphorus leaching from a silty-loam Gleysol, 203

Compression
 physical soil quality assessment from compression test data, 45

Conditioner, soil
 effects of conditioners and tillage on a clay loam soil, 381

Conductivité hydraulique
 properties of drained peatlands, 139

Conservation, soil
 rehabilitated landings: northeastern British Columbia, 465

Consolidation
 physical soil quality assessment from compression test data, 45

Contamination
 effects of a crude oil spill on microbiological quality, 173

Conventional tillage
 digital terrain modelling and 2,4-D sorption, 557

Copper
 wheat response to copper, 213

Copper fraction
 impact of manure addition on soil Cu and Zn distribution, 197

Corn
 crop rotation and soil N amendments on maize, 483
 paper mill sludge N availability to corn, 497

Cover crop
 cover crop and N fertilization on soil aggregation, 155

Critical value
 wheat response to copper, 213

Crop rotation
 agricultural management on soil carbon, 363
 P status of a Humic Gleysol profile under contrasting cropping practices, 537
 tillage and crop rotation on Chernozemic soils, 65

Cropping intensity
 agricultural management on soil carbon, 363

Crude oil contamination
 effects of a crude oil spill on microbiological quality, 173

Cultivated land
 cultivation and grassland type on organic C and N, 145

Dairy farm
 carbon and nitrogen mineralization rates, 25

Decomposition
 properties of drained peatlands, 139

Degradation, soil
 rehabilitated landings: northeastern British Columbia, 465

Degree of soil P saturation
 phosphorus in tile-drainage water from the Montreal Lowlands soils, 73
 phosphorus leaching from a silty-loam Gleysol, 203

Dehydrogenase activity
 effects of a crude oil spill on microbiological quality, 173

Denitrification
 effects of compost and pig manure on soil CO₂ and NO₂ emissions, 343
 N₂O from N fertilizers, 521

Desorption
 phosphate removal by sorption on volcanic soils, 547

Digital elevation model
 cultivation-induced soil change, 565

Digital terrain modelling
 digital terrain modelling and 2,4-D sorption, 557

Diversity
 ground beetles and agricultural ecosystems, 259
 symbiotic rhizobia in Canadian soils, 311

Dry matter accumulation
 crop rotation and soil N amendments on maize, 483

DTPA-extractable
 wheat response to copper, 213

Earthworm
 earthworms and agricultural systems, 265

Ecology
 Acari and Collembola biodiversity in Canadian agricultural soils, 279
 earthworms and agricultural systems, 265
 soil-nematode biodiversity, 289

Ecosystem services
 soil biota and soil organic matter, 245

Endomycorrhizal fungi
 mycorrhizal fungi biodiversity in Canadian soils, 321

Edge effects
 spatial patterns of soil temperature and moisture, 121

Elemental S
 sulphur fertilizer effects on sulphate supply to canola, 451

Enzyme
 paper sludge effects on lowbush blueberry, 1

Enzyme activity
 soil bioactivity and yield improvement with papermill compost, 353

Erosion
 cultivation-induced soil change, 565

Evapotranspiration
 soil water status under grazing management, 601

Fallow
 tillage, crop rotation and N economy, 475

Farm manure
 soil bioactivity and yield improvement with papermill compost, 353
 soil compost P fraction, 223

Fauna
 cattle grazing effects on soil mesofauna, 533

Fertility
mulches and biosolids affect orchard soil properties, 131

Fertilizer
agricultural management on soil carbon, 363

Fertilizer P
soil texture and fertilizer P effects on soil P transformations, 395

Fertilizer response functions
yield benefit of P fertilizer in Alberta, 431

Field pea
tillage, crop rotation and N economy, 475

Forage
soil water status under grazing management, 601

Forest floor
soil properties of understory vine maple, 35
spacial patterns of soil temperature and moisture, 121

Forest soil
organic C storage of Saskatchewan soils, 405

Forest soil rehabilitation
rehabilitated landings: northeastern British Columbia, 465

Forest, subalpine
spacial patterns of soil temperature and moisture, 121

Functional diversity
fungal plant pathogens and soil biodiversity, 331

Functional role
soil biota and soil organic matter, 245

Fungi, arbuscular mycorrhizal
mycorrhizal fungi biodiversity in Canadian soils, 321
soil P depletion capacity of arbuscular mycorrhizae, 337

Grassland, native
cultivation and grassland type on organic C and N, 145

Grassland soils
organic C storage of Saskatchewan soils, 405

Ground beetle
ground beetles and agricultural ecosystems, 259

Growing degree-days
climate change and the Canadian prairies, 623

Growth rate, crop
crop rotation and soil N amendments on maize, 483

Hedley phosphorus fractionation
P fractions in Alberta soils, 443

Herbicide sorption
digital terrain modelling and 2,4-D sorption, 557

Hog manure
long-term impact of manure on soil P status, 589

Hordeum vulgare
yield benefit of P fertilizer in Alberta, 431

Hydraulic conductivity, saturated pulp fibre as a soil amendment, 109

Hyphae, extraradical
soil P depletion capacity of arbuscular mycorrhizae, 337

Integrated pest management
fungal plant pathogens and soil biodiversity, 331

Iron nodules
formation of iron nodules, 167

Isotherm
phosphate removal by sorption on volcanic soils, 547

Isotope, stable, of soil carbon
organic C storage of Saskatchewan soils, 405

Kelowna
yield benefit of P fertilizer in Alberta, 431
P fractions in Alberta soils, 443

Kinetics
phosphate removal by sorption on volcanic soils, 547

Labile P
long-term impact of manure on soil P status, 589

Landscape-scale
cultivation-induced soil change, 565

Light fraction C and N
cultivation and grassland type on organic C and N, 145

Light fraction organic C
tillage and crop rotation on Chernozemic soils, 65

Light fraction organic matter
organic matter retention in soils of eastern Canada, 11

Liquid dairy manure
P status of a Humic Gleysol profile under contrasting cropping practices, 537

Liquid pig manure
effects of compost and pig manure on soil CO₂ and NO₂ emissions, 343

Low-input systems
carbon and nitrogen mineralization rates, 25

Lowbush blueberry
paper sludge effects on lowbush blueberry, 1

Maize hybrid
soil P depletion capacity of arbuscular mycorrhizae, 337

Malus domestica Borkh.
mulches and biosolids affect orchard soil properties, 131

Manure
crop rotation and soil N amendments on maize, 483
long-term impact of manure on soil P status, 589
soil bioactivity and yield improvement with papermill compost, 353
soil compost P fraction, 223

Manure, composted cattle
phosphorus leaching from a silty-loam Gleysol, 203

Manure, hog
impact of manure addition on soil Cu and Zn distribution, 197
long-term impact of manure on soil P status, 589

Manure, liquid dairy
P status of a Humic Gleysol profile under contrasting cropping practices, 537

Manure, liquid pig
effects of compost and pig manure on soil CO₂ and NO₂ emissions, 343

Masse volumique apparente et drainage properties of drained peatlands, 139

Matrix, soil
formation of iron nodules, 167

Meadow soil
carbon and nitrogen mineralization rates, 25

Mean weight diameter
pulp fibre as a soil amendment, 109

Mehlich III extractable P
P status of a Humic Gleysol profile under contrasting cropping practices, 537

Mesofauna
cattle grazing effects on soil mesofauna, 533

Microarthropod
Acari and Collembola biodiversity in Canadian agricultural soils, 279

Microbial biodiversity
bacteria in agricultural soils, 303

- Microbial biomass
 - effects of a crude oil spill on microbiological quality, 173
 - soil bioactivity and yield improvement with papermill compost, 353
- Microbial metabolic diversity
 - effects of a crude oil spill on microbiological quality, 173
- Mineralizable C
 - tillage and crop rotation on Chernozemic soils, 65
- Mineralization
 - distribution of N in potato hills, 183
- Mixed paper mill sludges
 - paper mill sludge N availability to corn, 497
- Model calibration
 - soil water status under grazing management, 601
- Model evaluation
 - soil water status under grazing management, 601
- Moisture retention
 - pulp fibre as a soil amendment, 109
- Moisture, soil
 - climate change and the Canadian prairies, 623
 - spacial patterns of soil temperature and moisture, 121
- Molecular technologies
 - fungal plant pathogens and soil biodiversity, 331
- Mulch
 - mulches and biosolids affect orchard soil properties, 131
- Mycorrhizae
 - mycorrhizal fungi biodiversity in Canadian soils, 321
- Native grassland
 - cultivation and grassland type on organic C and N, 145
- Natural gas wellsite
 - topsoil replacement and amendments for wellsites, 415
- Nematode distribution
 - soil-nematode biodiversity, 289
- Nitrate
 - soil N in potato fields, 425
- Nitrate leaching
 - distribution of N in potato hills, 183
- Nitrification
 - distribution of N in potato hills, 183
 - N_2O from N Fertilizers, 521
- Nitrogen cycling
 - bacteria in agricultural soils, 303
 - wellsite rehabilitation on native prairie, 507
- Nitrogen economy
 - tillage, crop rotation and N economy, 475
- Nitrogen efficiency
 - paper mill sludge N availability to corn, 497
- Nitrogen fertilizer
 - cover crop and N fertilization on soil aggregation, 155
 - N_2O from N fertilizers, 521
- Nitrogen:sulphur ratio
 - sulphur fertilizer effects on sulphate supply to canola, 451
- Nitrogen uptake
 - paper mill sludge N availability to corn, 497
- Nitrogen use efficiency
 - crop rotation and soil N amendments on maize, 483
- Nitrous oxide
 - effects of compost and pig manure on soil CO_2 and NO_2 emissions, 343
 - soil air storage and handling, 631
- Nitrous oxide production
 - N_2O from N fertilizers, 521
- Oil and protein content
 - canola response to boron, 99
- Oil, crude, contamination by
 - effects of a crude oil spill on microbiological quality, 173
- Olsen
 - P fractions in Alberta soils, 443
 - yield benefit of P fertilizer in Alberta, 431
- Orchard soil
 - mulches and biosolids affect orchard soil properties, 131
- Organic amendments
 - topsoil replacement and amendments for wellsites, 415
- Organic C and N, total
 - cultivation and grassland type on organic C and N, 145
- Organic matter
 - organic matter retention in soils of eastern Canada, 11
 - soil biota and soil organic matter, 245
- Papermill
 - soil bioactivity and yield improvement with papermill compost, 353
- Papermill sludge
 - paper sludge effects on lowbush blueberry, 1
- papermill sludge N availability to corn, 497
- Particle size
 - carbon and nitrogen mineralization rates, 25
- Particulate organic matter
 - organic matter retention in soils of eastern Canada, 11
- Pea, field
 - tillage, crop rotation and N economy, 475
- Pedotransfer function
 - physical soil quality assessment from compression test data, 45
- Penetration resistance
 - effects of selected amendments on soil properties, 615
- Pest management, integrated
 - fungal plant pathogens and soil biodiversity, 331
- Pesticide, and ground beetles
 - ground beetles and agricultural ecosystems, 259
- Pesticide biodegradation
 - bacteria in agricultural soils, 303
- Phosphate removal
 - phosphate removal by sorption on volcanic soils, 547
- Phosphorus
 - long-term impact of manure on soil P status, 589
 - phosphorus in tile-drainage water from the Montreal Lowlands soils, 73
- Phosphorus, extractable
 - soil P depletion capacity of arbuscular mycorrhizae, 337
- Phosphorus forms
 - P status of a Humic Gleysol profile under contrasting cropping practices, 537
- Phosphorus fractionation
 - soil compost P fraction, 223
- Phosphorus fractions
 - soil texture and fertilizer P effects on soil P transformations, 395
- Phosphorus index
 - phosphorus in tile-drainage water from the Montreal Lowlands soils, 73
- Phosphorus, labile
 - long-term impact of manure on soil P status, 589
- Phosphorus leaching
 - phosphorus leaching from a silty-loam Gleysol, 203
- Phosphorus loss
 - phosphorus in tile-drainage water from the Montreal Lowlands soils, 73

Phosphorus saturation
long-term impact of manure on soil P status, 589

Phosphorus transfer
phosphorus in tile-drainage water from the Montreal Lowlands soils, 73

Phosphorus uptake
soil P depletion capacity of arbuscular mycorrhizae, 337

Physical quality of soil
effects of conditioners and tillage on a clay loam soil, 381

Plant biomass
soil P depletion capacity of arbuscular mycorrhizae, 337

Plant competition
wellsite rehabilitation on native prairie, 507

Plant P uptake
soil texture and fertilizer P effects on soil P transformations, 395

Plant protection
mycorrhizal fungi biodiversity in Canadian soils, 321

Podzolic soils
spatial variability of trace metals, sampling implication, 581

Porosity, air-filled
 N_2O from N Fertilizers, 521

Potato
distribution of N in potato hills, 183
soil N in potato fields, 425

Prairie
wellsite rehabilitation on native prairie, 507

Primary tillage
P status of a Humic Gleysol profile under contrasting cropping practices, 537

Productivity
rehabilitated landings: northeastern British Columbia, 465

Prostigmata
cattle grazing effects on soil mesofauna, 533

PRS-probes
sulphur fertilizer effects on sulphate supply to canola, 451

Range management
cattle grazing effects on soil mesofauna, 533

Reclamation, soil
topsoil replacement and amendments for wellsites, 415

Red clover
tillage, crop rotation and N economy, 475

Rego Black Chernozem soils
organic C storage of Saskatchewan soils, 405

Remoulded
physical soil quality assessment from compression test data, 45

Residual effects
paper mill sludge N availability to corn, 497

Resin
P fractions in Alberta soils, 443

Rhizobia, symbiotic
symbiotic rhizobia in Canadian soils, 311

Rockwool
effects of conditioners and tillage on a clay loam soil, 381

Rotation
crop rotation and soil N amendments on maize, 483
soil temperature and winter wheat, 89

Row spacing
soil temperature and winter wheat, 89

Sampling strategies
distribution of N in potato hills, 183

Sand
effects of conditioners and tillage on a clay loam soil, 381

Saprolite
formation of iron nodules, 167

Saskatchewan, soil zones of organic C storage of Saskatchewan soils, 405

Saturated hydraulic conductivity
pulp fibre as a soil amendment, 109

Scale of observation
challenges for soil biodiversity research, 231

Secondary succession
wellsite rehabilitation on native prairie, 507

Sediment yield
pulp fibre as a soil amendment, 109

Seeding date
climate change and the Canadian prairies, 623

Seedling emergence
effects of selected amendments on soil properties, 615

Sequential Cu extraction
impact of manure addition on soil Cu and Zn distribution, 197

Sequential Zn extraction
impact of manure addition on soil Cu and Zn distribution, 197

Size fractions
organic matter retention in soils of eastern Canada, 11

Smelter emissions
spatial variability of trace metals, sampling implication, 581

Soil-plant interactions
soil properties of understory vine maple, 35

Soil test P
phosphorus leaching from a silty-loam Gleysol, 203

Soil testing
yield benefit of P fertilizer in Alberta, 431

Soil zones of Saskatchewan
organic C storage of Saskatchewan soils, 405

Solanum tuberosum L.
distribution of N in potato hills, 183
soil N in potato fields, 425

Sorption
phosphate removal by sorption on volcanic soils, 547

Spatial variability
spatial variability of trace metals, sampling implication, 581

Species distribution
earthworms and agricultural systems, 265

Stable isotope of soil carbon
organic C storage of Saskatchewan soils, 405

Subalpine forest
spacial patterns of soil temperature and moisture, 121

Succession, secondary
wellsite rehabilitation on native prairie, 507

Surface sealing
effects of selected amendments on soil properties, 615

Swine manure
impact of manure addition on soil Cu and Zn distribution, 197
long-term impact of manure on soil P status, 589

Symbiosis
mycorrhizal fungi biodiversity in Canadian soils, 321

Symbiotic rhizobia
symbiotic rhizobia in Canadian soils, 311

Taxonomy
Acari and Collembola biodiversity in Canadian agricultural soils, 279

Temperature, soil
soil temperature and winter wheat, 89

spacial patterns of soil temperature and moisture, 121

- Testing, soil
 - yield benefit of P fertilizer in Alberta, 431
- Texture
 - soil texture and fertilizer P effects on soil P transformations, 395
 - tillage and crop rotation on Chernozemic soils, 65
- Tile-drainage water
 - phosphorus in tile-drainage water from the Montreal Lowlands soils, 73
- Tillage
 - agricultural management on soil carbon, 363
 - effects of conditioners and tillage on a clay loam soil, 381
 - soil temperature and winter wheat, 89
 - tillage and crop rotation on Chernozemic soils, 65
 - tillage, crop rotation and N economy, 475
- Tillage, conventional
 - digital terrain modelling and 2,4-D sorption, 557
- Tillage, primary
 - P status of a Humic Gleysol profile under contrasting cropping practices, 537
- Tillage redistribution
 - cultivation-induced soil change, 565
- Tillage, zero
 - digital terrain modelling and 2,4-D sorption, 557
 - sulphur fertilizer effects on sulphate supply to canola, 451
- Topography
 - cultivation-induced soil change, 565
 - digital terrain modelling and 2,4-D sorption, 557
- Topsoil
 - topsoil replacement and amendments for wellsites, 415
- Total organic C and N
 - cultivation and grassland type on organic C and N, 145
- Tourbe
 - properties of drained peatlands, 139
- Trace metals
 - spatial variability of trace metals, sampling implication, 581
- Triple superphosphate
 - phosphorus leaching from a silty-loam Gleysol, 203
- Ultisol
 - formation of iron nodules, 167
- Urea
 - impact of manure addition on soil Cu and Zn distribution, 197
- Versatile soil moisture budget model
 - soil water status under grazing management, 601
- Vine maple
 - soil properties of understory vine maple, 35
- Volcanic soil
 - phosphate removal by sorption on volcanic soils, 547
- Water retention capacity
 - mulches and biosolids affect
- orchard soil properties, 131
- Water-stable aggregate
 - pulp fibre as a soil amendment, 109
- Water-stable macro-aggregates
 - organic matter retention in soils of eastern Canada, 11
- Wavelet analysis
 - spacial patterns of soil temperature and moisture, 121
- Wellsite
 - wellsite rehabilitation on native prairie, 507
- Wellsite, natural gas
 - topsoil replacement and amendments for wellsites, 415
- Wheat
 - tillage, crop rotation and N economy, 475
 - wheat response to copper, 213
- Wheat, winter
 - soil temperature and winter wheat, 89
- Wheatgrass
 - wellsite rehabilitation on native prairie, 507
- Zea maize*
 - crop rotation and soil N amendments on maize, 483
- Zero tillage
 - digital terrain modelling and 2,4-D sorption, 557
 - sulphur fertilizer effects on sulphate supply to canola, 451
- Zinc fraction
 - impact of manure addition on soil Cu and Zn distribution, 197

